REMARKS

Claims 20-27 are pending. Reconsideration is respectfully requested.

In the outstanding Office Action, claims 20-27 were rejected under 35 U.S.C. §102 (b) as being anticipated U.S. Patent No. 5,241,210 (Nakagawa et al.); and claims 20-27 were rejected under 35 U.S.C. §102 (e) as being anticipated U.S. Patent No. 5,241,210 (Yamaguchi et al.).

Claim Rejections - 35 U.S.C. §102

Claims 20-27 were rejected under 35 U.S.C. §102 (b) as being anticipated U.S. Patent No. 5,241,210 (Nakagawa et al.). Applicants respectfully traverse.

With regard to Nakagawa et al., the outstanding Office Action states:

> Nakagawa disclose, in column 7, lines 26-32, that oxide 53/53a, see figures 6/17 respectively, forms a groove/trench and figure 17 shows an electrode clearly on section 64a which is filled into groove/trench 53/53a. Therefore the control electrodes are on the trench structure and read on the claims.[1]

However, applicants respectfully submit that Nakagawa et al. discloses first and second electrodes ***62a, 63a as source and drain electrodes***, respectively (emphasis added).[2] Applicants respectfully submit that the "electrode" indicated in the outstanding Office Action is clearly connected to **62a**, a *source electrode*.

In contrast to the "electrode" indicated in the outstanding Office Action and what is disclosed by Nakagawa et al. as discussed above, the present invention claims, as recited in claim 20:

> forming electrical connections on said trench structure and said substrate which *receive a control voltage whereby an electric field is produced to control a current flowing in said diffusion region* (emphasis added);

[1] Outstanding Office Action at page 4, paragraph, lines 4-7.
[2] Nakagawa et al. at FIG. 6; FIG. 17; column 7, lines 25-46; column 9, lines 36-49.

and as recited in claim 26:

> forming multiple contacts on each of said trench structures and said substrate *for controlling current through said diffusion regions* (emphasis added).

That is, Applicants respectfully submit that it is well known in the art that the "electrical connection," as recited in claim 20, or "multiple contacts," as recited in claim 26, that "*receive a control voltage whereby an electric field is produced to control a current flowing in said diffusion region,*" as recited in claims 20, is clearly a gate electrode and not the source electrode indicated in the outstanding Office Action and disclosed by Nakagawa et al.

Therefore, it is respectfully submitted that Nakagawa et al. does not disclose, anticipate or inherently teach the claimed invention and that claims 20 and 26, and claims dependent thereon, patentably distinguish thereover.

Claims 20-27 were rejected under 35 U.S.C. §102 (b) as being anticipated U.S. Patent No. 6,118,152 (Yamaguchi et al.). Applicants respectfully traverse.

With regard to Yamaguchi et al., the outstanding Office Action states:

> Yamaguchi discloses, in column 3, lines 42-48, that oxide 6 forms on the inside walls of trench 5 and *control electrode 19a/19b* are clearly on sections 7 which are filled into trench 5, see figure 1 and column 4, lines 24-53.[3]

In addition, the outstanding Office Action states: "the control electrode on trench are electrodes 19a/19b not the gate electrodes 15a/15b as cited in applicant's response/arguments."[4] Further, Yamaguchi et al. discloses forming gate electrodes **15a, 15b** over the well regions **10a, 10b**.[5]

In contrast to the "electrodes 19a/19b" indicated in the outstanding Office Action and what is disclosed by Yamaguchi et al., as discussed above, the present invention claims, as recited in claim 20:

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[3] Outstanding Office Action at page 4, paragraph, lines 10-12.
[4] *Id.* at page 4, paragraph 4, lines 13-15.
[5] Yamaguchi et al. at column 3, line 43 to column 4, line 53.

> forming electrical connections on said trench structure and said substrate which *receive a control voltage whereby an electric field is produced to control a current flowing in said diffusion region* (emphasis added);

and as recited in claim 26:

> forming multiple contacts on each of said trench structures and said substrate *for controlling current through said diffusion regions* (emphasis added).

That is, Applicants respectfully submit that it is well known in the art that the "electrical connection," as recited in claim 20, or "multiple contacts," as recited in claim 26, that "*receive a control voltage whereby an electric field is produced to control a current flowing in said diffusion region,*" as recited in claims 20, is clearly a gate electrode and not the "electrodes 19a/19b," as stated in the outstanding Office Action and disclosed by Nakagawa et al. This is the precise reason why the previous response/arguments by the Applicants explicitly pointed to the gate electrodes **15a/15b** disclosed by Yamaguchi et al. and noted in the outstanding Office Action.

Therefore, it is respectfully submitted that Yamaguchi et al. does not disclose, anticipate or inherently teach the claimed invention and that claims 20 and 26, and claims dependent thereon, patentably distinguish thereover.

Conclusion

In view of the above amendments and remarks, reconsideration and allowance of the pending claims are respectfully requested.

Applicants believe that the present application is in condition for allowance, and an early indication of the same is respectfully requested.

If the Examiner has any questions or requires clarification, the Examiner may contact the undersigned so that this Application may continue to be expeditiously advanced. In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned is available at the telephone number noted below.

Attorney Docket No. BU9-99-067
(21806-00070-US1)

Application No. 10/672,012

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to Deposit Account No. 22-0185.

Respectfully submitted,

Date: October 11, 2005

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